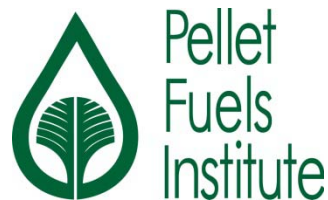


# Biomass Thermal Energy : Legislative Initiatives and Commercial and Industrial Applications

**Bruce Lisle**, Founder & CEO Retired, Energex  
Pellet Fuel;  
Director, Past President, Pellet Fuels Institute;  
CEO, North American Biomass Boilers

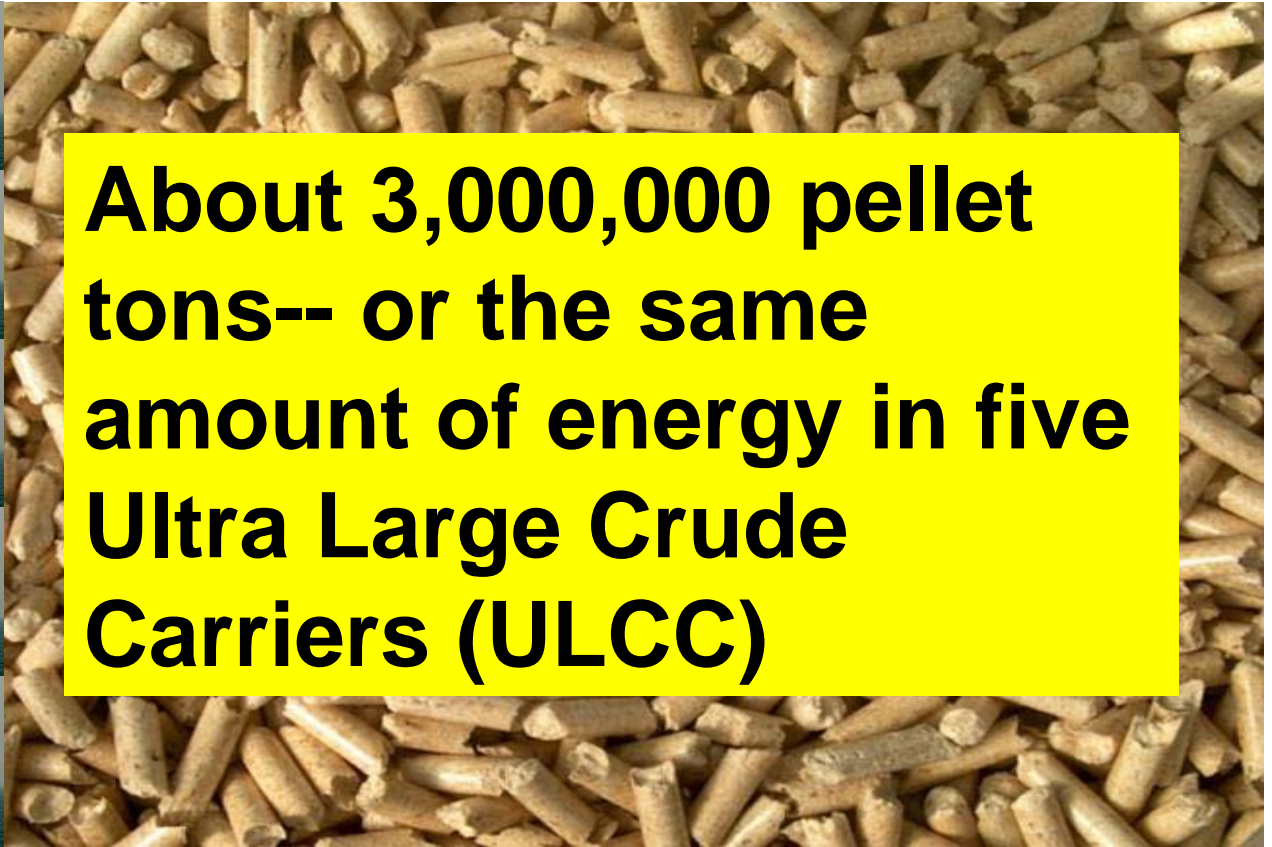


**ALLIANCE**  
FOR GREEN HEAT  
clean, renewable & local

# PFI MISSION STATEMENT

A North American trade association promoting energy independence through the efficient use of clean, renewable, densified biomass fuel.

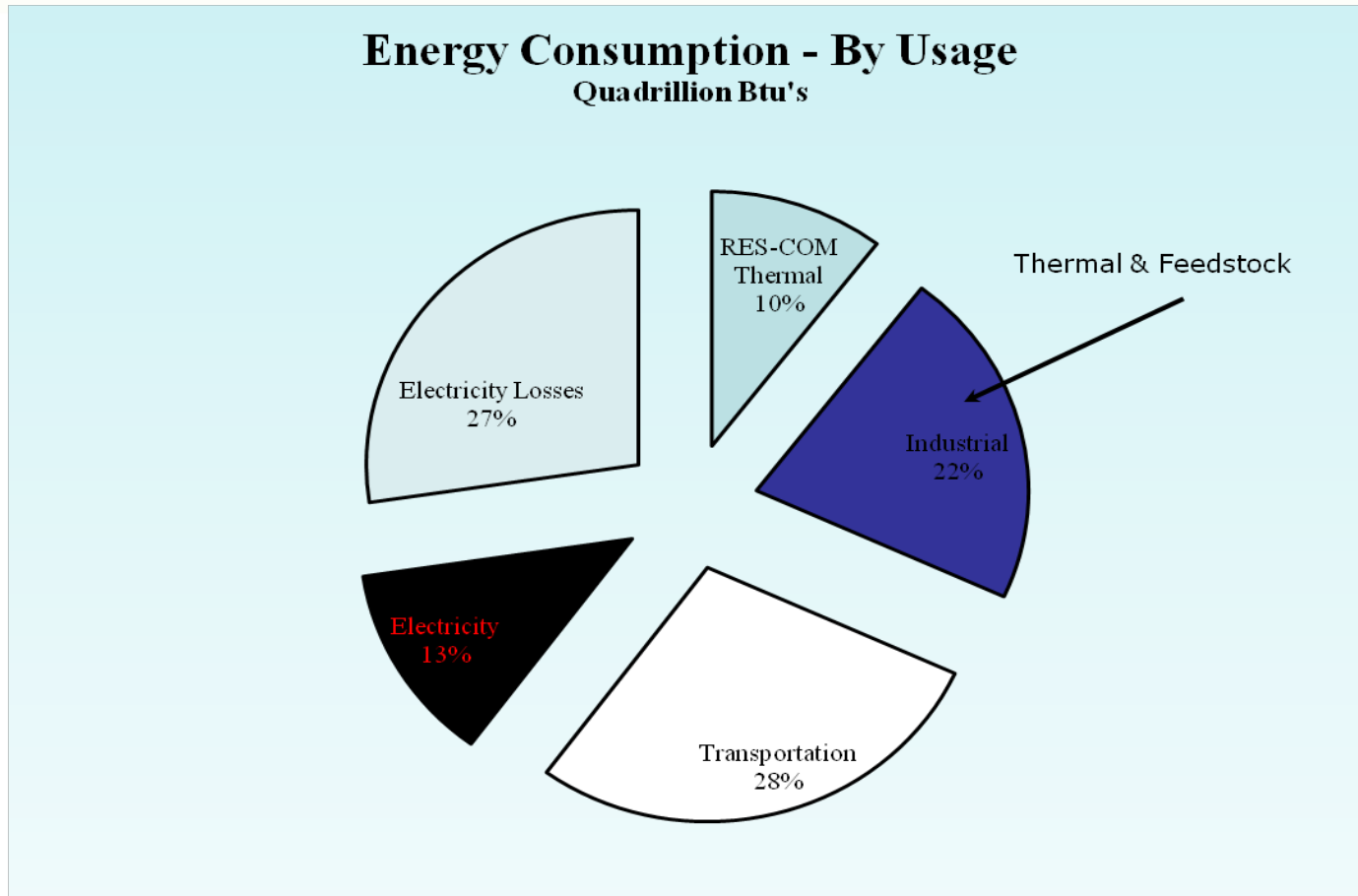
# Energy Equivalency of Pellet Industry



**About 3,000,000 pellet tons-- or the same amount of energy in five Ultra Large Crude Carriers (ULCC)**

# Thermal, The Lost Energy

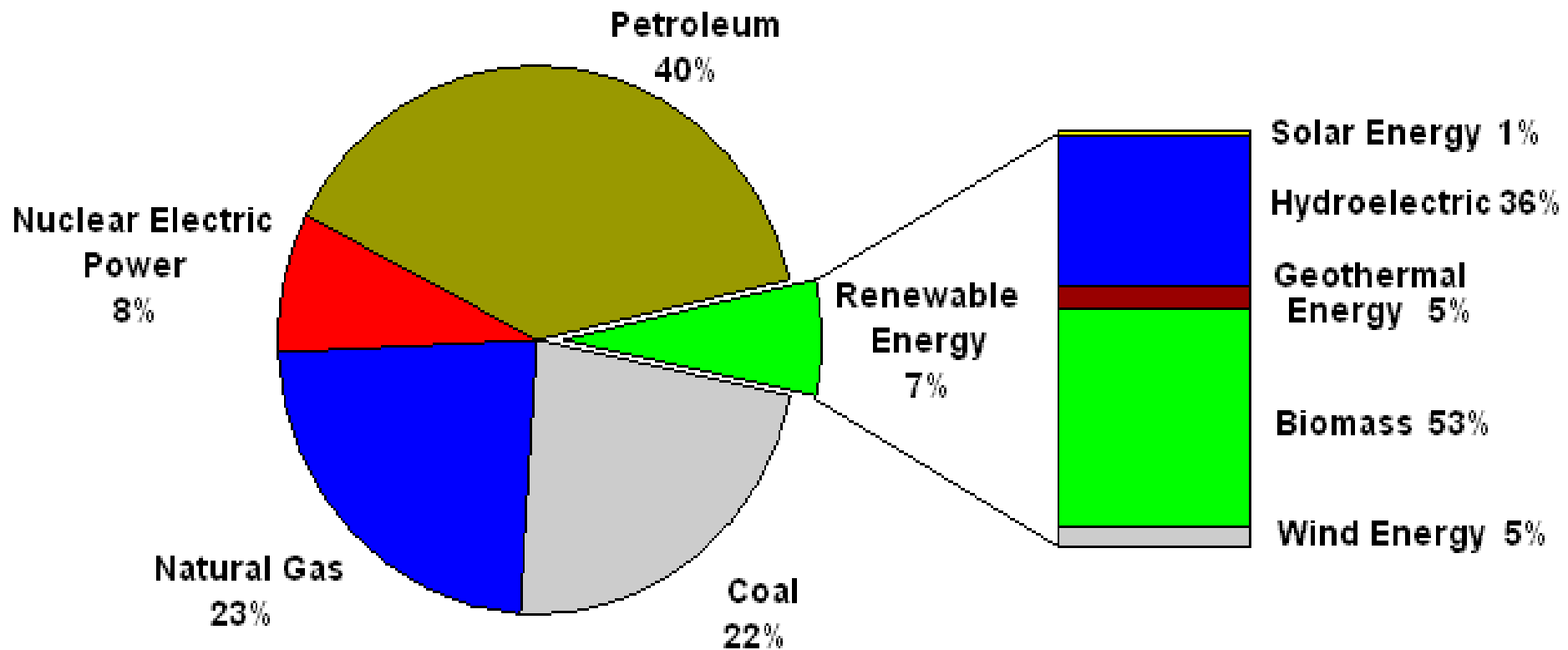
(Energy Consumption, 2007, from DOE-EIA)



# The Role of Renewable Energy Consumption in the Nation's Energy Supply, 2007 , from DOE-EIA

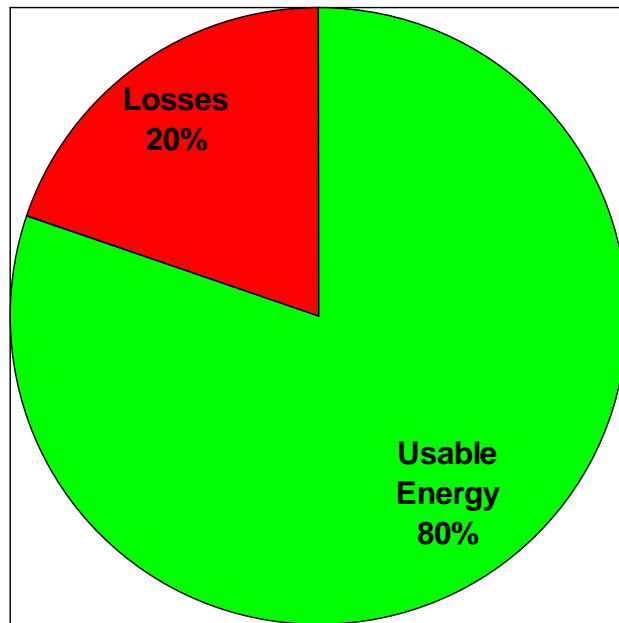
Total = 101.605 Quadrillion

Total = 6.830 Quadrillion Btu



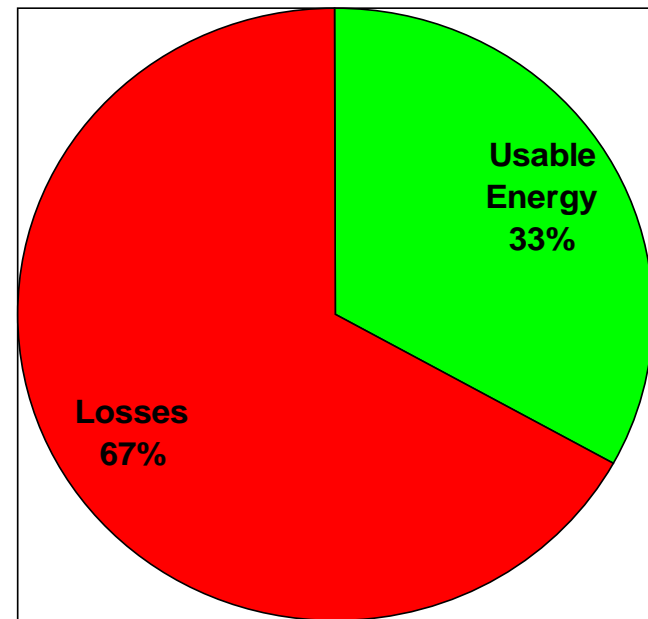
# Efficiency

## Biomass Thermal Energy



■ Usable Energy ■ Losses

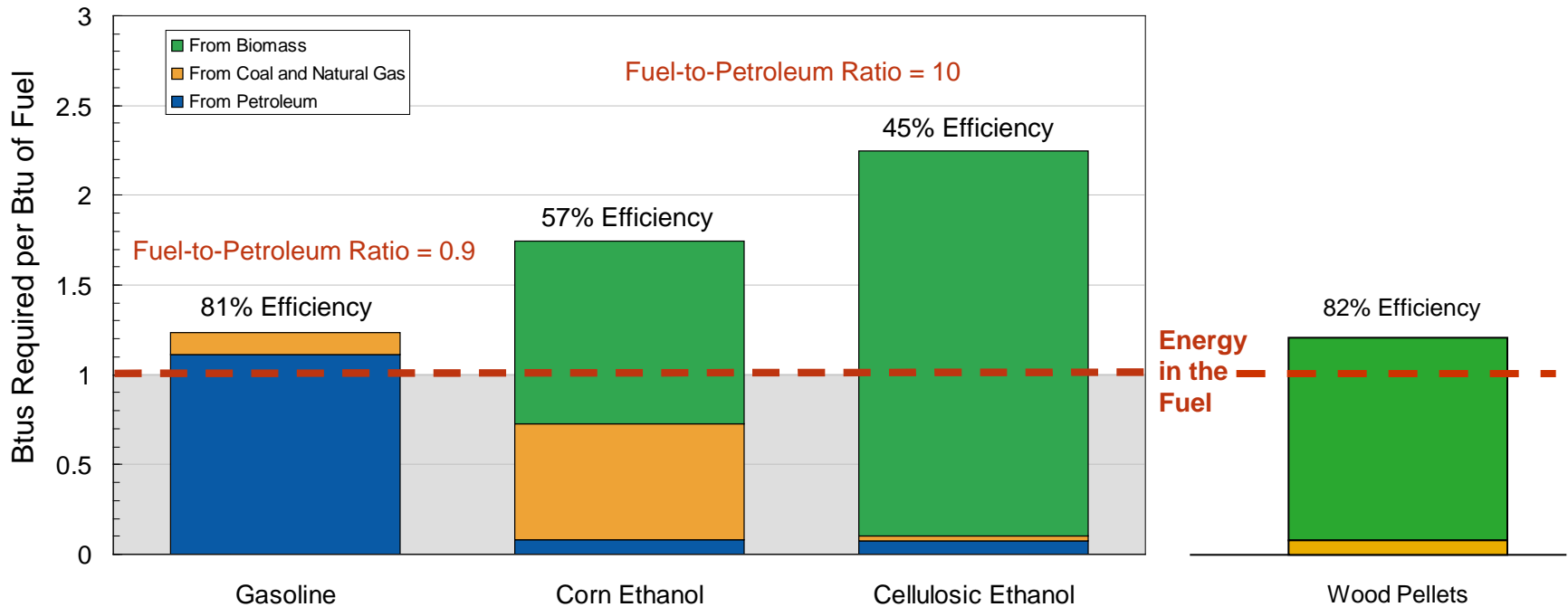
## Biomass Electric Energy



■ Usable Energy ■ Losses

# Biomass Heat Uses **ALL** the Fuel Energy

## Total BTUs Consumed To Generate One BTU of Usable Fuel Output



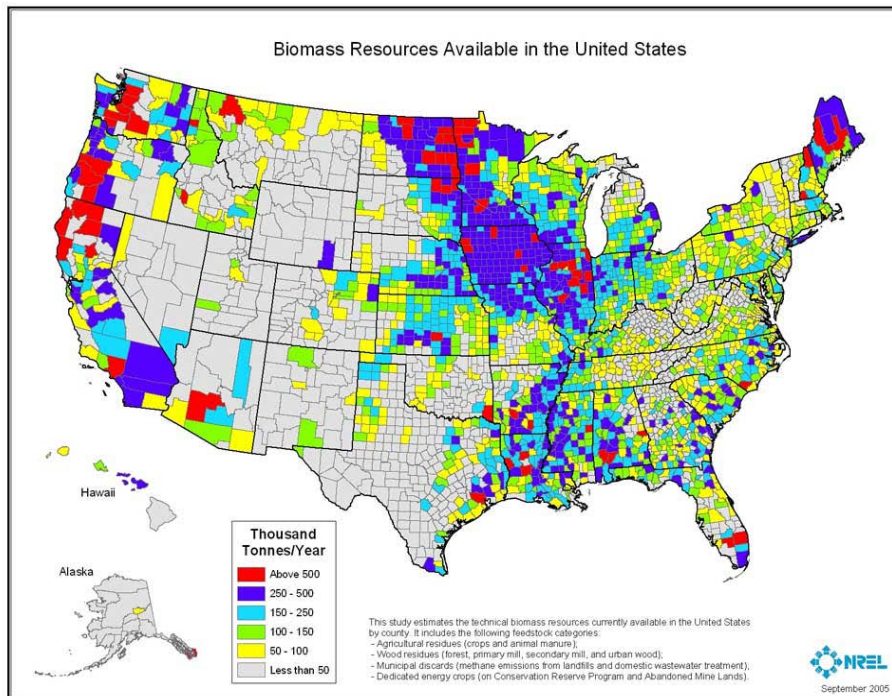
**DENSIFICATION IS ENERGY EFFICIENT VS OTHER BIOMASS FUELS**

# Success Is Market Driven





# Legislative Priority – Market Anomalies



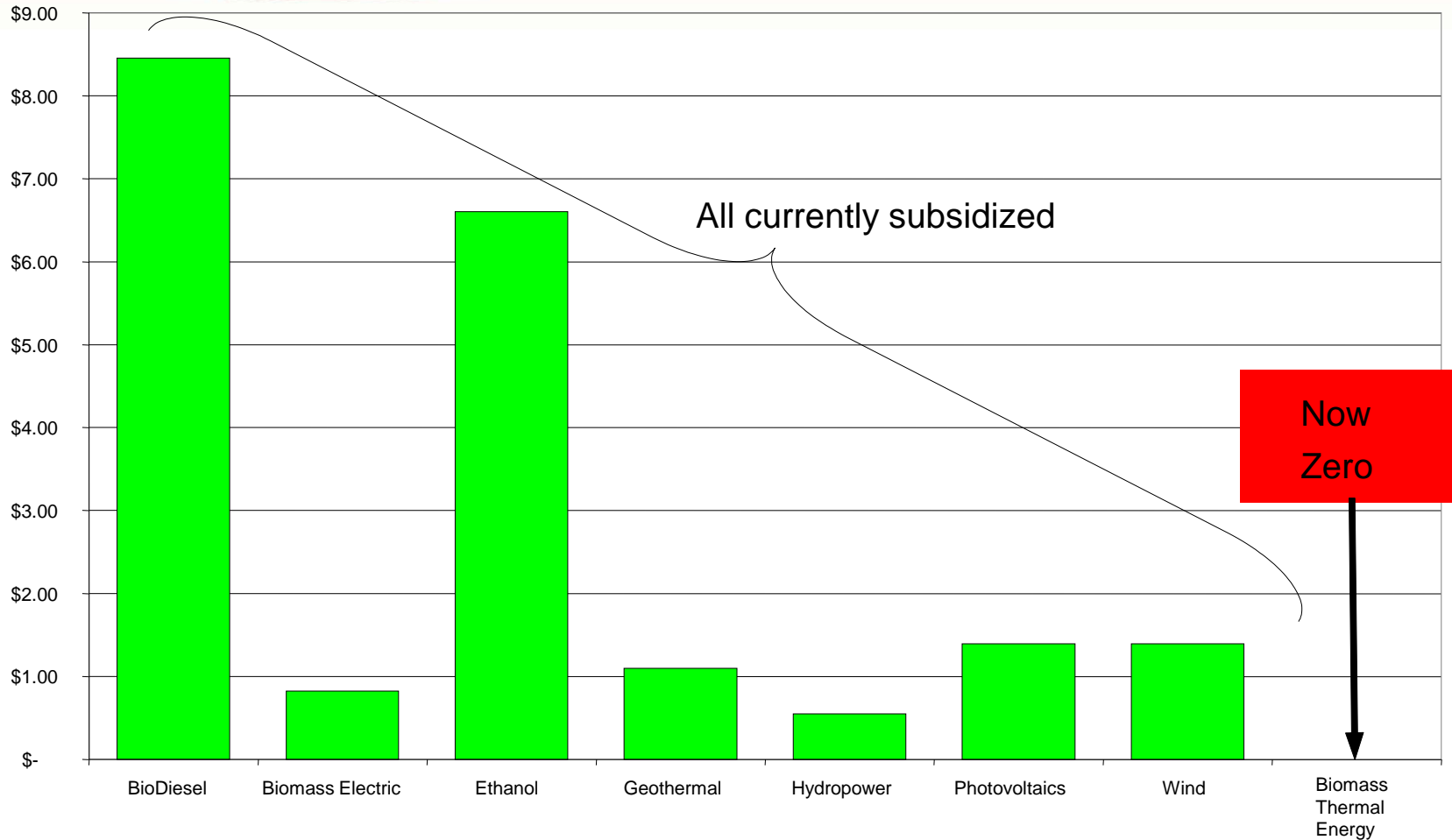
**Current Legislation favors certain Biomass Energies over others**

**This creates unequal competition in the Raw Material Marketplace**

**Access to Feedstock** – The biomass industry needs better access to feedstock. The dead, dying, downed, and diseased wood in our forests could be put to beneficial use. The pellet industry, along with other biomass industries, could utilize this feedstock in a sustainable manner while also helping with forest fire mitigation and suppression. The competition for feedstock highlights an unfair discrepancy for our industry. The biomass thermal industry competes for feedstock materials with other biomass-based renewable energies that receive significant federal support. As a result, feedstock materials costs are distorted in the marketplace. With potential shortages resulting from subsidized competition, our industry faces a precarious situation. PFI is working with the relevant Congressional Committees, the USDA, and the DOI to gain better access to feedstock and influence their efforts.

# Legislative Priority - Level The Playing Field

## *Subsidy Per Million BTUs of Fuel Displaced*



# Demand Side – Legislative Action

## CURRENT LAW

**American Recovery and Reinvestment Act—HR 1 – 30% Tax Credit for 75% Efficient Biomass-Burning Stoves** – 30% consumer tax credit (up to \$1500) for the purchase and installation of a 75% efficient biomass-burning stove. Effective January 1, 2009 – December 31, 2010.

# Demand Side – Legislative Action

## IN PROCESS

**H.R. 2080, the American Renewable Biomass Heating Act –Sponsored by Representative Paul Hodes (D-NH)**

**S. 1643, the Cleaner, Secure, and Affordable Thermal Energy Act – Sponsored by Senator Olympia Snowe (R-ME)**

**Legislation regarding a Commercial/Industrial Biomass Heating Tax Credit to be introduced by Senator Jeanne Shaheen (D-NH) and Representative Paul Hodes (D-NH)**

**Concentrated Animal Feeding Operations (CAFO) to Fuel Switch**

# Production Side – Legislative Action

## CURRENT LAW

**Biomass Crop Assistance Program (BCAP)**

## IN PROCESS

**S. 1094, the Renewable Energy Alternative Production Act (REAP Act) – Sponsored by Senator Ron Wyden (D-OR)**

# Climate Change/Cap-and-Trade

H.R. 2454, the American Clean Energy and Security Act and S. 1733, the Clean Energy Jobs and American Power Act

- Definition of Biomass
- Certified Stove Program
- Economic Development Climate Change Fund
- Thermal Energy Efficiency Act – Sen. Bernie Sanders’ (I-VT)

## Agriculture Section

S. 2729, the Clean Energy Partnerships Act – Sen. Stabenow’s (D- MI)

- Potential to be an eligible offset project
- Repowering Assistance
- Rural Energy for America

# QUESTIONS?

